

abdomen banded with yellow and black. Abdomen beneath smooth, impunctate, yellow; a spot on each side of each segment within the stigmata, and another on the lateral margin, black. Head beneath, breast and rostrum testaceous; the apex of the latter pitchy. Legs dusky testaceous, the thighs punctured with pale brown. Antennæ with the basal joint dusky testaceous, second black, pale at the base, third and fourth black, the basal portion of the latter yellowish white.

II. Notice of some Hemiptera from Boutan, in the Collection of the Hon. East India Company. By W. S. DALLAS, Esq., F.L.S.

[Read 1st October, 1849.]

IN a former notice (Vol. V. p. 186), under the above title, I laid before the Society a list of some species of *Scutelleridæ* and *Pentatomidæ*, from Boutan, contained in the Museum of the East India Company. Although these were not very numerous, the Collection is still more scantily furnished with examples of the other divisions of *Hemiptera*, there being but twenty species in all, including two belonging to the Homopterous family *Cercopidæ*.

Of the eighteen Heteropterous species, ten belong to the *Coreidæ*; namely, *Derepteryx Hardwickii*, White; two species of the genus *Acanonicus*, Westw. (*Dalader*, Am. & Serv.), of which one appears to be the *A. rubiginosus*, Hope, whilst the other is most probably a variety of the Javanese *Dalader rotundicosta*, Am. & Serv.; it is rather smaller, and has the sides of the thorax and abdomen and the third joint of the antennæ less dilated than that species. Other described species are, *Homæocerus biguttatus*, Hope; *Gonocerus calumniator*, Fab.; and *Mictis Tragus*, Fab. Two other species, also belonging to the genus *Mictis*, I have not been able to determine satisfactorily.

The remaining two species of *Coreidæ* appear to be decidedly nondescript. One belongs to the genus *Nematopus*,—I have called it—

Sp. 1. *Nematopus serripes*. (Pl. II. fig. 2.)

N. rufo-fuscus, punctatissimus; capite, thorace, scutello, elytrorumque membrana nigro-æneis; femoribus posticis elongatis,

incrassatis, tuberculatis, nigro-cæruleis; tibiis fusco-rufis, intus serratis. ♂.

Long. lin. $9\frac{1}{2}$ (20 mill.)

Head brassy black, finely granulated. Eyes pale brown; ocelli yellow. Prothorax and scutellum brassy black, shining, very thickly and finely punctured,—the former with a large pit within each lateral angle. Elytra diminishing gradually in breadth from base to apex; the coriaceous portion reddish brown, obscure, very thickly and finely punctured, the punctures being larger at the base; the membrane brassy. Margins of abdomen projecting slightly beyond the elytra on each side, reflexed, testaceous, with a black band on the posterior margin of each segment; the extreme edge is black and very finely denticulated throughout. Abdomen beneath brownish red, shining; the margins yellowish, marked with black, as on the upper surface; anal plate black, with the edges fringed with yellow hairs. Breast pitchy black, slightly shining, finely punctured and granulated on the sides, smooth in the centre. Rostrum, antennæ (two first joints, rest wanting) and four anterior legs ferruginous; posterior legs with the thighs very long, much thickened, blackish blue, shining, covered with small tubercles, and with a row of six spines beneath, of which the one nearest the base is very small, the others gradually increasing in size to the fourth, which is the largest; fifth and sixth about equal, the latter being inserted close to the apex of the thigh; tibiæ brownish red, as long as the thighs, slightly curved inwards, especially at the apex, strongly channelled on the outside, with the edges finely crenulated; the inner margin serrated throughout its entire length, with the teeth pitchy. Tarsi ferruginous.

This species is remarkable for the contrast of its colours and the structure of the posterior thighs and tibiæ.

The other species is an *Anisoscelis*, and, from the general form of the head and body (the posterior legs being wanting) appears to belong to that division of the genus *Anisoscelis*, Burm., to which the name *Leptoscelis* has been applied by Laporte and Amyot and Serville.

Sp. 2. *Anisoscelis rufiventris*.

A. thorace utrinque spina parva acuta armato; supra nigro-ferruginea, punctata, tenuissime rufo-marginata; subtus rufa, nigro-maculata, antennis pedibusque nigris. ♀.

Long. lin. 9 ($19\frac{1}{2}$ mill.)

Above ferruginous black, opaque, thickly and rather finely

punctured; beneath orange red, slightly shining, punctured. Head oblong, rather short and obtuse, the central projection short and rounded; the red colour of the under surface appears on each side, forming a red margin to the head. Thorax with the lateral angles produced on each side into a slender acute spine, directed upwards and forwards; the lateral margins narrowly edged with red. Scutellum pitchy black. Elytra with a narrow red outer margin, which disappears before the apex of the coriaceous portion; membrane brownish, semitransparent, with a triangular, opaque piece at the internal basal angle. Abdomen above red, with the margins variegated with black; beneath red, with the margins as on the upper side; a black spot on each of the stigmata; two small patches at the base of the third segment, and a ring on the second, of the same colour; basal segment variegated with black. Breast reddish orange, thickly and strongly punctured, with two black spots on each side of the postpectus and medipectus, one on each side of the antepectus and one at the base of each of the coxæ; the centre of the breast is black and smooth, furnished with a distinct furrow. Head beneath reddish orange, finely punctured, with a black furrow down the centre for the reception of the basal joint of the rostrum. Rostrum black, with the basal joint and the base of the second yellowish white. Anterior and intermediate legs and basal joint of antennæ black. The remainder of the antennæ and the posterior legs are wanting in the only specimen before me.

Of the eight species remaining, two belong to the genus *Pyrhocoris*, Burm.; they are both Fabrician species,—*Lyg. faber* and *Schlanbuschii*, Fab.

Four are members of the family *Reduviidæ*, and of these, three appear to be undescribed. The first is a large species of the genus *Platymeris*, Burm., apparently belonging to *Acanthaspis*, Am. & Serv.

Sp. 3. *Platymeris fulvipes*. (Pl. II. fig. 3.)

P. niger, subopacus; thoracis lobo antico 5-sulcato, lobo postico utrinque spina acuta recurva armato; elytrorum maculis quatuor, femorum apicibus, tibiis tarsisque fulvis. ♂.

Long. lin. $13\frac{1}{2}$ (28 mill.)

Head and thorax black, somewhat opaque, finely granulated, and beset with numerous hairs of moderate length, especially on the sides. Eyes brownish testaceous; ocelli brown. Anterior lobe of the thorax with five deeply impressed, longitudinal furrows,

of which the central one is forked anteriorly, and gives off a short branch on each side near the base, and with a small tubercle at each anterior angle; posterior lobe hexagonal, transverse, with a strong, acute spine at each lateral angle, and a small tubercle within each posterior angle above the base of scutellum. Scutellum black, opaque, granulated, with a few longish hairs, and with the apex produced into a slender, acute, elevated spine (fig. 3 a). Elytra black, slightly shining, with a few scattered raised points on the surface, a small triangular orange spot at the base on the outer margin, and a large roundish spot of the same colour towards the apex of the coriaceous portion, touching the outer margin and the base of the membrane. Margins of the abdomen banded with black and yellow. Abdomen beneath pitchy, smooth, slightly shining, with the apex reddish, and a yellow band on each segment towards the lateral margins. The second abdominal segment bears a small, sharp, longitudinal keel in the centre, and the apical half of the terminal one is finely wrinkled transversely. Breast black, rough; metasternum with a faint longitudinal central keel, prosternum with a narrow central furrow. Legs rather long, clothed with long fine hairs; thighs pitchy, with the apex reddish orange; tibiæ and tarsi reddish orange, the former with their apices pitchy on the inside. Rostrum and antennæ pitchy black, the former smooth and shining, reaching the base of the anterior coxæ; the latter with the second joint thickly clothed with fine short hairs, basal and setiform apical joints with short scattered hairs.

This fine species also occurs in Assam, but the specimens from that locality are paler in colour than the one above described, being pitchy instead of black on the upper surface, pitchy brown beneath.

A large species of *Harpactor* I have named

Sp. 4. *Harpactor obscurus*. (Pl. II. fig. 4.)

H. supra fuscus, obscurus, subtus rufus, totus pilis numerosis parvis vestitus; capite nigro, thoracis lobo antico nigro, utrinque spinoso, fusco-verrucoso, tibiis omnibus rufis. ♀.

Long. lin. $11\frac{1}{2}$ (24 mill.)

Head subcylindric, black, impunctate, somewhat opaque, clothed with short yellowish hairs. Eyes brown. Thorax with the anterior lobe black, opaque, with several reddish brown warts, and a small blunt spine or tubercle of the same colour at each of its posterior angles; posterior lobe brown, obscure, rough, wrinkled transversely and clothed with very short yellow hairs, the lateral

angles considerably produced but not acute. Scutellum pitchy brown, pilose. Elytra brown, obscure; membrane blackish brown, wrinkled, with a brassy reflection. Margins of the abdomen projecting beyond the elytra on each side, pitchy red, with the posterior margin of each segment narrowly edged with red. Abdomen beneath bright red, smooth, impunctate, with a sharp longitudinal central keel on all the segments except the two basal ones. Breast dull red, pitchy in the centre. Head beneath pitchy; rostrum pitchy red. Antennæ black. Thighs and coxæ pitchy, the anterior thighs thicker than the others, the posterior longest. Anterior tibiæ orange red, the four posterior brownish red. Tarsi orange.

The entire surface, above and beneath, is clothed with short yellow hairs, especially the abdomen and breast, and the under surface of the anterior and intermediate thighs and tibiæ.

The only specimen of this insect in the collection is deformed in the thorax, the left lateral angle being, as it were, crushed forwards; I have, however, figured it with both angles alike.

The third is a small species of *Arilus*.

Sp. 5. *Arilus nigricollis*. (Pl. II. fig. 5.)

A. capite, thoracis lobo antico, scutello, pectore, antennis, pedibusque nigris; thoracis lobo postico flavo, abdomine rufo. ♀.
Long. lin. 7 (15 mill.)

Head black, smooth, impunctate, with a few fine hairs on the sides; a deep, transverse, impressed line across the disc at the posterior margin of the eyes, immediately behind which are placed the ocelli, inserted on two tubercles. Thorax hexagonal, with the antero-lateral margins longest, and nearly straight, the constriction between the lobes being very faint; the anterior lobe small, black, with two obtuse tubercles in the centre, separated by a longitudinal furrow, and which are again slightly notched transversely at their apices; the posterior lobe large, yellow, smooth, impunctate and slightly shining, rather convex, with a slight circular depression in the centre; lateral angles somewhat prominent, separated from the central portion by a strong depression. Scutellum black, slightly shining, with a raised line at the apex. Elytra brownish testaceous; the coriaceous portion indistinctly punctured, the membrane semitransparent. Abdomen projecting slightly beyond the elytra on each side, with the margins bright red; beneath convex, bright red, shining, impunctate. Breast black, impunctate, smooth, but more or less clothed with short

greyish hairs. Prosternum with a longitudinal central furrow, in which the point of the rostrum rests; the interior of this furrow is testaceous. Head beneath yellow in the centre, with the margins black; smooth, shining, impunctate. Legs, rostrum and antennæ black; legs and antennæ clothed with numerous very fine hairs.

The fourth is the *Eulyes amœna*, Guér., which completes the list of the terrestrial species.

The two remaining species fall under the genus *Ranatra*, Fab.; the first, belonging to a section of that genus which has been separated by Amyot and Serville under the name of *Cercotmetus* for the reception of a Javanese species, their *C. Asiaticus*, I have named

Sp. 6. *Ranatra* (*Cercotmetus*) *pilipes*. (Pl. II. fig. 6.)

R. (C.) *elongata*, luteo-fusca, obscura; capite tuberculo inter oculos; setis caudalibus brevibus, latis, compressis; elytris abdominis segmentum apicale non attingentibus, tibiis tarsisque 4 posticis interne pilis longis instructis.

Long. corp. unc. $1\frac{1}{2}$.

Linear-elongate, yellowish brown, opaque. Head small, with a tubercle on the vertex between the eyes. Elytra not reaching the apex of the penultimate segment of the abdomen, with the coriaceous portion covered with very small hairy tubercles. Caudal setæ very short, not more than one-fourth the length of the body, broad, compressed, and strongly pilose externally. Abdomen beneath strongly keeled, the keel continued upwards along the sternum, disappearing about the centre of the mesosternum; prosternum with two deep longitudinal furrows extending its whole length. Legs somewhat robust and pilose; anterior thighs and tibiæ very short; intermediate and posterior tibiæ and tarsi furnished on the inner side with a double row of long yellow hairs.

It is not without doubt, that I describe this species as new, for although Amyot and Serville make no mention of the strong fringes of hairs on the two posterior pairs of legs in the description of their species, I am inclined to think that this omission may be the result of accident, perhaps of their specimens being in bad condition. Their statement that the *Ranatræ* have "*les jambes frangées*" can hardly be taken to convey the impression of such a decided character as is exhibited in this species, the fringes in the other species of *Ranatra* being very slight. It appears to me, that the character is rather generic than specific, and tends to confirm Amyot and Serville's separation of their genus *Cercotmetus*

from *Ranatra*; for these fringes indicate a much greater velocity of motion than is possessed by the other *Ranatræ*; the short, broad anal setæ will act as a rudder, rendered necessary by the increased activity of the animal, whilst the elongated anterior legs being no longer requisite, and tending rather to impede its movements, become contracted into more moderate dimensions. Indeed, it appears to be a rule in the genus *Ranatra* that any increase in the length of the caudal setæ is accompanied by an increase, although to a less extent, in the length of the anterior legs, and probably a diminution of the activity of the animal.

The second is a true *Ranatra*.

Sp. 7. *Ranatra gracilis*.

R. elongata, ferrugineo-fusca, obscura; capite tuberculo acuto inter oculos; setis caudalibus brevibus, tenuibus; abdomine carinato, prosterno bisulcato; pedibus quatuor posticis subpilosis.

Long. corp. lin. $12\frac{1}{2}$.

Linear-elongate, ferruginous brown, obscure. Head with an acute tubercle between the eyes. Scutellum with two small pits on the disc towards the apex. Elytra reaching beyond the base of the apical segment of the abdomen. Caudal setæ short, rather longer than the head and thorax together, slender, very slightly pilose externally. Abdomen beneath keeled, the keel not continued beyond the base of the posterior legs. Prosternum with two longitudinal furrows. Legs very long and slender, subpilose, anterior thighs with six very faint teeth beneath at the base; the four posterior tibiæ and tarsi simple.

This species appears to be allied to the *R. filiformis*, Fab., but wants the grey rings on the legs mentioned in his description; it is also a much larger insect than that figured by Guérin under that name, and has the caudal setæ much shorter in proportion.

Of the *Homoptera*, there are, as above mentioned, only two species, both belonging to the genus *Cercopis*.

Sp. 8. *Cercopis fulviceps*.

C. capite, thoraceque fulvis, elytris nigro-rufis, corpore subtus, pedibusque nigris. ♀.

Long. lin. $10\frac{1}{2}$ (22 mill.)

Head and thorax bright orange, shining, very finely punctured, the latter with a narrow but very distinctly raised border. Scu-

tellum small and triangular, with the lateral margins incurved; reddish black, rather convex and transversely wrinkled. Anterior wings reddish black, somewhat obscure, very minutely and thickly punctured, with the outer margins pitchy red. Wings brownish, semitransparent. Abdomen beneath black, shining. Breast, legs and rostrum pitchy.

This species appears to approach very closely to the *C. fuscipennis*, Le P. & Serv., and may perhaps be a very dark variety of it; it differs in the colour of the legs and underside of the body.

Sp. 9. *Cercopis dimidiata*.

C. nigra, thorace fascia lata rubra; elytris rubris, fasciis tribus nigris. ♀.

Long. lin. 7 (15 mill.)

Head black, punctured. Eyes pale-brown; ocelli yellowish-white. Thorax very thickly and finely punctured, with its posterior half, and a transverse quadrangular patch on the anterior margin, black; the remainder bright red. Scutellum black, transversely wrinkled. Elytra bright red, very thickly and finely punctured, with three broad irregular transverse black bands on each, of which the first arises at the apex of the scutellum, the second a little behind the middle, and the third forms a broad black margin round the apex. Body beneath black, shining. Legs and rostrum pitchy.
